

DETAILED ACTION

1. This action is in response to Applicant's submission filed 1/23/08, responding to the 9/25/07 Office action which detailed the rejection of claims 1-42. Claims 1, 3, 15, 17, and 29 have been amended. Claims 1-42 remain pending in the application and have been fully considered by the examiner.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/26/07 has been entered.

Terminal Disclaimer

3. The terminal disclaimer filed on 11/26/07 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 10/782,080 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Response to Arguments

4. The terminal disclaimer filed on 11/26/07 has obviated the double patenting rejection which has been withdrawn.

5. The claim amendments and arguments at the bottom of page 12, filed 11/26/07, has obviated the rejections under 35 U.S.C. § 101. These rejections have been withdrawn.

6. Applicant's arguments, see pages 13-14, filed 11/26/07, with respect to 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a), have been fully considered and are persuasive. The rejections of claims 1-42 have been withdrawn.

EXAMINER'S AMENDMENT

7. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Steven J. Hanke, Reg. No. 58,076 on 3/13/08. During the interview, the examiner suggested that new art was found that would form the basis for a new rejection of the independent claims under 35 U.S.C. § 103(a). However, review of the subject matter of claim 30 revealed patentable limitations which would be allowable if present in the independent claims.

The application has been amended as follows:

IN THE CLAIMS

Please cancel claim 30, and amend claims 1, 15, and 29 as follows:

1. (Currently Amended) A condition management system embodied in a computer-readable media of a processor employing a hierarchical register consolidation structure, comprising:

a condition management data structure, separate from said hierarchical register consolidation structure, configured to abstract groups of status indicators associated with said hierarchical register consolidation structure into a tree of hierarchical container objects and element objects, each of said container objects associated with at least one of said element objects and linked to a single parent object, each of said element objects configured to represent at least one of said status indicators and linked to a single child object, wherein if two groups of said status indicators consolidate to a single consolidation status indicator of said hierarchical register consolidation structure, one of said container objects being associated with said at least one of said element objects and a virtual element object, said virtual element object being said parent object to one of said container objects associated with said element objects representing said status indicators of one of said two groups;

an abstraction retrieval subsystem configured to employ said condition management structure to traverse said hierarchical register consolidation structure to determine a condition of at least one of said status indicators; and

an abstraction management subsystem configured to employ said condition management structure to control a propagation of selected ones of said status indicators through said hierarchical register consolidation structure.

15. (Currently Amended) A method of operating a condition management system for use with a processor employing a hierarchical register consolidation structure, comprising:

employing a condition management data structure, separate from said hierarchical register consolidation structure, to abstract groups of status indicators associated with said hierarchical register consolidation structure into a tree of hierarchical container objects and element objects, each of said container objects associated with at least one of said element objects and linked to a single parent object, each of said element objects configured to represent at least one of said status indicators and linked to a single child object, wherein if two groups of said status indicators consolidate to a single consolidation status indicator of said hierarchical register consolidation structure, one of said container objects being associated with said at least one of said element objects and a virtual element object, said virtual element object being said parent object to one of said container objects associated with said element objects representing said status indicators of one of said two groups;

employing said condition management structure to traverse said hierarchical register consolidation structure to determine a condition of at least one of said status indicators; and

employing said condition management structure to control a propagation of selected ones of said status indicators through said hierarchical register consolidation structure.

29. (Currently Amended) A memory for storing status indicators to control a propagation of selected ones of said status indicators through a hierarchical register consolidation structure, comprising:

a condition management data structure stored in said memory, separate from said hierarchical register consolidation structure, said condition management data structure including information to abstract groups of status indicators associated with a hierarchical register consolidation structure of said processor into a tree and accessed by said application program, said condition management data structure including:

hierarchical container objects and element objects stored in said memory, each of said container objects being associated with at least one of said element objects and having a parent link to a single parent object, wherein if two groups of said status indicators consolidate to a single consolidation status indicator of said hierarchical register consolidation structure, one of said container objects being associated with said at least one of said element objects and a virtual element object, said virtual element object being said parent object to one of said container objects associated with said element objects representing said status indicators of one of said two groups;

each of said element objects representing at least one of said status indicators and having a child link to a single child object; and

said parent object being a consolidation element object associated with a hierarchically higher container object and said child object being a hierarchically lower container object, thereby establishing a hierarchy of said container objects.

30. (Canceled)

Allowable Subject Matter

8. Claims 1-29 and 31-42 are allowed.

9. The following is an examiner's statement of reasons for allowance:

The examiner indicated that this application would be in condition for allowance if the independent claims 1, 15, and 29 are amended to include the features of claim 30, including if two groups of said status indicators consolidate to a single consolidation status indicator of said hierarchical register consolidation structure, one of said container objects being associated with said at least one of said element objects is a virtual element object, said virtual element object being said parent object to one of said container objects associated with said element objects representing said status indicators of one of said two groups. The above features, taken in combination with all remaining features of the independent claim are not taught or suggested by the prior art of record. The applicant agreed to amend the independent claims 1, 15, and 29 as indicated by the examiner. The patentable features of the independent claims apply to all remaining dependent claims. Thus, claims 1-29 and 31-42 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 5,371,742 to Brown et al. discloses a hierarchical register consolidation structure (see Fig. 2 and column 2 lines 55-56).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES RUTTEN whose telephone number is (571)272-3703. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571)272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/jdr/

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192